UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte SHELL STERLING SIMPSON

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Appeal 2009-001185
Application 09/928,192
Technology Center 2400

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Decided: October 30, 2009

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Before ALLEN R. MACDONALD *Vice Chief Administrative Judge,*
ST. JOHN COURTENAY III, and DEBRA K. STEPHENS *Administrative Patent Judges.*

COURTENAY, Administrative Patent Judge.

DECISION ON APPEAL

 This is a decision on appeal under 35 U.S.C. § 134(a) from the

Examiner's final rejection of claims 7-37. Claims 1-6 and 38-40 have been

cancelled. We have jurisdiction under 35 U.S.C. § 6(b).

 We REVERSE.

STATEMENT OF THE CASE

THE INVENTION

Appellants' invention relates generally to network topology determination. More particularly, Appellants' invention relates to detecting nearby devices in a network environment. (Spec. 1, ll. 4-5).

Claim 7 is illustrative:

7.   One or more computer readable media having stored thereon a plurality of instructions that, when executed by one or more processors, causes the one or more processors to perform acts comprising:

identifying one or more devices in a network;

obtaining, for at least one of one or more network switches in the network, an indication of which port of the network switch a computing device is coupled to;

obtaining, for each of the one or more identified devices and for the at least one network switch, an indication of which port of the network switch the identified device is coupled to; and

determining, for at least one of the one or more identified devices, how physically distant the identified device is to the computing device, wherein the determining is based at least in part on the indication of which port of the network switch the computing device is coupled to and the indication of which ports of the network switch the one or more identified devices are coupled to.

PRIOR ART

The Examiner relies upon the following reference as evidence:

Yacoub   US 2003/0011805 A1   Jan. 16, 2003

THE REJECTIONS

1. The Examiner rejected claims 7-29 and 31-37 under 35 U.S.C.
   § 102(e) as anticipated by Yacoub.

2. The Examiner rejected claim 30 under 35 U.S.C. § 103(a) as
   unpatentable over Yacoub in view of Official Notice.

APPELLANT'S CONTENTIONS

Appellant contends that Yacoub discloses nothing about determining locations/distances of printers in relation to which network switch port a user workstation or a printer is coupled. (App. Br. 7).

Appellant asserts that Yacoub does not even contain the term "switch." (App. Br. 8).

Appellant contends that inherency must be based on more than mere supposition. Specifically, Appellant argues just because it may have been possible for Yacoub's network switch to provide a port number does not mean that such an action is inherent in Yacoub's disclosure. (Reply Br. 3).

Appellant further contends that Yacoub does not teach either explicitly or inherently, "obtaining . . . an indication of which port of the network switch the identified device is coupled to." (Reply Br. 4).

EXAMINER'S FINDINGS

The Examiner contends that it is "inherently assumed" that a network switch by its nature will provide the port number a device is connected to based on its MAC (Media Access control) address table. (Ans. 14, ¶ 1).

The Examiner contends that it is virtually impossible to determine the physical distance between two network devices as it all depends upon the length of the cable being used to establish the connectivity. (Ans. 14).

The Examiner contends that "appellant seems to trivialize the inferring of such a feat, the process by which one derive[s] or conclude (sic) the physical distance between 2 devices is an enormous task that is not easily accomplished. At the very least, an explanation of such an inference should be detailed in the specification." (Ans. 15).

ISSUE

Based upon our review of the administrative record, we have determined that the following issue is dispositive in this appeal:

Have Appellants shown the Examiner erred in finding that Yacoub discloses determining locations/distances of printers in relation to which network switch port a user workstation or a printer is coupled?

PRINCIPLES OF LAW

Anticipation under 35 U.S.C. § 102

> A party asserting that a patent claim is anticipated under 35 U.S.C. § 102 must demonstrate, among other things, identity of invention . . . [which] is a question of fact . . . one who seeks such a finding must show that each element of the claim in issue is found, either expressly described or under principles of inherency, in a single prior art reference, or that the claimed

> invention was previously known or embodied in a single prior
> art device or practice.

Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 771 (Fed. Cir. 1983), *cert. denied,* 465 U.S. 1026 (1984) (citation omitted), *overruled on other gds., SRI Intern'l v. Matsushita Elec. Corp.,* 775 F.2d 1107, 1125 (Fed. Cir. 1985).

Appellants have the burden on appeal to the Board to demonstrate error in the Examiner's position. *See In re Kahn,* 441 F.3d 977, 985-86 (Fed. Cir. 2006). Therefore, we look to Appellant's Briefs to show error in the proffered prima facie case.

FINDINGS OF FACT

In our analysis *infra*, we rely on the following findings of fact (FF):

1. Yacoub discloses that in traditional networked printers, a single printer (or set of printers) is frequently connected through a central server which administers many different stand-alone computer systems. (Para. [0005]).

2. Yacoub discloses that a virtual printer checks a user's preferences regarding a print job the user wishes to send *such as speed and image quality.* Next, the virtual printer determines, using a server, database or other query, the most appropriate printer complying with the print job preferences, and located physically near the user and sends the print job to that printer. (emphasis added) (Abst. ll.1-7).

3. Yacoub discloses that between similar printers (speed/quality), the distances between the printers and the user/workstation is determined. (Para. [0027]). Yacoub teaches determining the distances between the

user/workstation and a printer by assigning coordinates to the user and printer, which are then plugged into a Pythagorean theorem. (*See id.*).

4.   Yacoub discloses that "[a] direct-connect printer is not capable of connecting over a network connection such as Ethernet and can only be connected directly to a port of a computer system. A network printer typically has the capability of being both directly connected to a particular computer and connected over network 650." (Para. [0036]).

5.   Appellant's Specification states that "Inference is made as to the proximity of a desired device to the current device based on which port of the switch the devices are coupled to as well as how many other devices . . . are also coupled to that port." (Spec. 9, ll. 5-8).

ANALYSIS

ISSUE

We decide the question of whether Appellant has shown the Examiner erred in finding that Yacoub discloses determining locations/distances of printers in relation to which network switch port a user workstation or a printer is coupled. (See claim 7).

As noted above, the Examiner states that it is "inherently assumed" that a network switch by its nature will provide the port number a device is connected to based on its MAC (Media Access control) address table. (Ans. 14, ¶ 1).

However, we find Yacoub is silent with respect to any express disclosure of a switch. Yacoub describes printers that are connected in a network without describing a network switch. (FF 1). Regarding ports, Yacoub merely discloses that "[a] direct-connect printer is not capable of

connecting over a network connection such as Ethernet and can only be connected directly to a *port* of a computer system. A network printer typically has the capability of being both directly connected to a particular computer and connected over network 650." (FF 4, emphasis added).

While Yacoub also discloses that a set of printers is frequently connected through a central server (FF 1), we find that such connection could alternately be implemented via a hub instead of a switch, where a packet entering a port is simply broadcast out or "repeated" on every other port of the hub, except for the port of entry. Therefore, we cannot say that the invention of Yacoub inherently (necessarily) requires a network switch.

Thus, we find that to affirm the Examiner's position on this point would require speculation on our part. However, "[i]nherency … may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *In re Robertson*, 169 F.3d 743, 745, (Fed. Cir. 1999) (internal citations omitted).

This reasoning is applicable here. Therefore, we cannot support the Examiner's finding that any information is inherently obtained from a network switch in the manner claimed.

Moreover, we agree with Appellant's statement that Yacoub's network does not necessarily function to provide port information to be used to determine a device's distance from a workstation, as claimed. Instead, Yacoub teaches determining the distances between the user/workstation and a printer by assigning coordinates to the user and printer, which are then plugged into a Pythagorean theorem. (FF 3; *see also* FF 2; *cf.* FF 5). As discussed above, we agree with Appellant that Yacoub does not expressly nor inherently disclose a network switch.

Because Appellant has shown the Examiner erred, we reverse the Examiner's anticipation rejection of independent claim 7 and associated dependent claims 8-19 which stand therewith.

Independent Claims 20 and 29

Similar to independent claim 7, independent claims 20 and 29 each explicitly recite network switches.[1] Consistent with our analysis above, we are unable to support the Examiner's determination of inherency. Therefore, we reverse the Examiner's rejection of independent claims 20 and 29 as well as associated dependent claims 21-28 and 30-37 which stand therewith. We note that claim 30 depends upon claim 29 and is rejected separately under § 103.

CONCLUSION

Based on the findings of facts and analysis above, Appellant has established that the Examiner erred in finding that Yacoub discloses determining locations/distances of printers in relation to which network switch port a user workstation or a printer is coupled.

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[1] Claim 20 recites obtaining an "indication of which port of the network switch the device is coupled to." Claim 29 recites "determining each switch and each port to which the devices are coupled."

DECISION

The Examiner's decision rejecting claims 7-29 and 31-37 under 35 U.S.C. §102(e) is reversed.

The Examiner's decision rejecting claim 30 under 35 U.S.C. §103(a) is reversed.

REVERSED

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